

High precision digital temperature and humidity sensor with single wire communication

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1 Features

- Direct replacement for DHT11
- Support standard reflow soldering
- Typical accuracy: $\pm 2\%RH$, $\pm 0.2^{\circ}C$
- Measuring range: $-40^{\circ}C \sim 125^{\circ}C$, $0 \sim 100\%RH$
- Supply voltage range: $2.5V \sim 5.5V$
- Conversion current: $350\mu A$
- Standby current: $0.5\mu A$
- Communication interface: Single wire
- Package Information:

PART NUMBER	PACKAGE	BODY SIZE (mm ²)
GXHT11	DFN-6	2.00 × 2.00

2 Applications

- HVAC
- Cold chain storage facility
- Intelligent Agriculture
- Medical devices
- Consumer electronics
- Environmental Monitoring

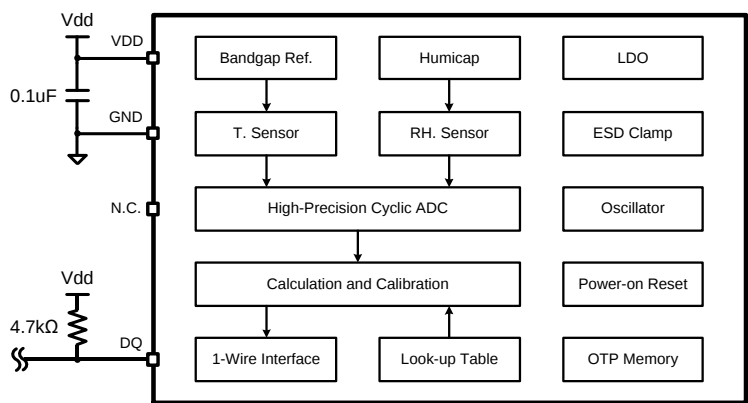
3 Description

The GXHT11 is a fully integrated, single-chip digital temperature and humidity sensor that features an internal capacitive humidity sensing unit alongside a PN junction temperature sensing unit. It converts signals into digital output through a high-precision ADC. Each GXHT11 undergoes rigorous calibration and adjustment before leaving the factory to ensure the consistency and accuracy of every chip.

The GXHT11 is packaged in a compact DFN-6 format with dimensions of just 2.0mm x 2.0mm and a height of 0.75mm, and is ideal for applications where space is extremely limited. The sensor utilizes a single-wire interface, and its communication protocol is fully compatible with the DHT11, allowing for direct replacement without any modifications to existing customer solutions.

The GXHT11 is supplied in reels that meet standard SMD production requirements.

Functional module diagram of GXHT11



10 Ordering Information

ORDER NUMBER	CHIP MODEL	PACKAGE	SPQ	NOTE
GXHT11-T&R	GXHT11	DFN-6	2000	Tape & Reel.
GXHT11C-T&R	GXHT11C	DFN-6	2000	Tape & Reel, covered with a dustproof breathable film.
GXHT11CF-T&R	GXHT11CF	DFN-6	2000	Tape & Reel, covered with a conformal coating film.